

HI-Q

THE LAKEHEAD AMATEUR RADIO CLUB JOURNAL

LARC- Suite 184, 1100C Memorial Ave., Thunder Bay, Ontario, Canada, P7B 4A3

VE3FW - LARC call sign - honours the memory of the Founding President - P. J. "Pat" O'Shea

LARC SENATE

Keith Fiske	VE3JQ
Ray Forslund	VE3EDZ
Ray Greer	VE3CH
Dave Kimpton	VE3AVS
Bill Klemacki	VE3AJ
Bill Roberts	VE3ARN

LARC EXECUTIVE

President:	Bob Hansen	VE3RVA 767-6924
Vice-Pres:	Mark Vaillant	VA3MVR 935-2205
Secretary:	Judy Artist	VA3EAP 345-2218
Treasurer:	Jan Sokoloski	VA3JRS 344-3222
Directors:	Ed Baumann	VE3SNW 622-1216
	Andy Malcolm	VE3INI 345-1858
	Maureen Meredith	VA3MOB 344-7868
	Pat Pugh	VA3PP 345-8562
Past Pres:	Ian Mellis	VA3RIM 577-1628

LARC OPEN ACCESS REPEATERS

VE3YQT	MOUNT BALDY	147.06	(-600)	FP
VE3TBR	ST. JOSEPH'S	146.820	(-600)	FP
VE3BGA	HILLCREST H.S.	147.390	(+600)	
VE3TBB	UPSALA ONT.	145.470	(-600)	FP
(linked to VE3YQT)				

PREZ SEZ.....

This year's LARC dinner meeting was a huge success. Plenty of door prizes (even I won!...Ed.) and an interesting guest speaker. All members, wives and guests had a great time. I would like to give a heartfelt thanks to all those members who helped out in so many ways. This year I made sure there was plenty of heat to keep you warm! (a balmy 72 F at the windows, thanks Bob....Ed.)

Our guest speaker was Harold Alanen, a retired teacher. He showed his slides of his photo safari to Africa, which included the local people, animals, flowers and birds. A wonderful presentation.

Next meeting in March will be a "show and tell". Please bring with you a piece of communication equipment or test equipment and tell the members all about it.

Hope to see you there.
Bob **VE3RVA** Your President

(The following submission is via Jim **VE3UA** and should be of interest to all amateurs, especially our newcomers and those interested in space communications. It is printed as received.....Ed.)

From: "Frank H. Bauer"
<frank.bauer@gsfc.nasa.gov>
Subject: [sarex] ARISS Operations

I have had several inquiries as to "what's up" with Amateur Radio operations on the ISS. I hope to provide you as much information as we have at this point in time. Miles Mann recently defined some of the mechanics of communicating with ISS. This represented a good rundown for each of you to prepare for amateur radio operations. The following, while long, will give each of you a good understanding of where we are and where we are going with ARISS ops. I would suggest that you save this information for the future.

Before I get into what is happening today on ISS, I would like to cycle back a few years ago. In 1996 an international group of radio amateurs got together with a common vision---to develop a single amateur radio station on ISS. In September 2000, this international team, called Amateur Radio on the International Space Station (or ARISS), realized this dream with the launch of the first complement of amateur radio hardware on ISS. I want everyone to know that this event represented the culmination of a very formidable task. If you could have seen, day to day, how difficult it was to develop and qualify hardware for ISS (remember there were no precedents before us) you would understand that this international team did something that was near impossible. Actually we blazed a trail for NASA, Energia and all the other ISS countries by being the **FIRST** to get our "payload" hardware qualified. During this formidable process, some areas associated with ARISS were not completed as rigorously as others. In particular, the on-board procedures for the hardware need to be improved and the U.S. team would like to better educate the U.S. crew on operations in the context of the three primary goals of ARISS ops--School Group Contacts, General QSOs and Family Contacts.

Let's walk through some of the operational concerns the ARISS team have received from you:

GENERAL QSO OPERATIONS

One thing we all need to keep in mind--the crew members really define whether they want to use the equipment or not. Depending on their interest and the crew workload, various facets of the hobby will be engaged or not. My past work in SAREX made me acutely aware of this fact.

VOICE OPERATIONS

There are some things we do know regarding general voice QSOs. Those that have been involved in Amateur Radio on Human Spaceflight vehicles know that Sergei, **U5MIR** enjoys amateur radio operation.

He was extremely active on Mir and was the same on Shuttle Missions that carried amateur radio. Many of you have notice the absence of Sergei from the radio.

It is our belief that he is quite busy over the US with the 143.625 communications. You can hear him and Yuri on that frequency nearly every US pass. The ARISS team has gotten reports that the Russian crew have started general QSO ops in Russia. Bill Shepherd (Shep) has done a couple of general QSO ops. Based on what we have learned from operations over the past 2 months, the ARISS team would be surprised if this first crew will do a substantial number of general voice QSO's. Shep did not get instruction on general QSO operations from the US team and discussions with him have recently led us

to believe that he wants to concentrate on School Group contacts and autonomous packet radio operations.

In the future, the ISS crews will be switching from the 143.625 frequency to TDRSS. When this happens, the crew will not be constrained to a few 143.625 passes over the US and Russia. I am sure that this will open up additional opportunities for the crew to do general voice QSOs. In the meantime, listen to the school group contacts and hopefully we will hear one

of the crew members on the air doing general voice QSOs.

PACKET OPERATIONS

I made an announcement a couple of weeks ago that the packet system was going to be turned on. Well, it was turned on and I am sure each of you along with my team listened intently for the packet beacon to no avail.

Over the past few weeks we have been working with Shep to understand what happened. Let me explain to you what we know and the steps we are taking to get the packet operating.

First, we do know that the packet was operational after launch because we heard the beacon on one of the first engineering passes over the US. Based on the discussions we have had with Shep and some of the characteristics of the ground system we think we have a handle on the problem. We have generated some in-flight maintenance procedures to help resolve and potentially correct the problem.

We believe that one of two things have happened--either the ram backup battery died in the TNC or the TNC experienced a single event upset. In either case, we believe that the RAM parameters were either corrupted or set to the default. We believe that the most likely scenario is a dead battery since we recently saw one of the batteries in a training unit die. If we are able to fully check out the system, this problem can be easily corrected and the packet system will again be fully operational.

I must remind everyone that these early stages of ISS introduce complications that we hope to not see in the later portions of the ISS operations. We are pioneering the use of the ISS hand-in-hand with NASA, Energia and the other international space agencies. As stated before, we don't have a good set of in-flight procedures on-board to recover from this problem. The ARISS team has tapped a team to work on a full set of on-board procedures for the operations of the whole ARISS system--including failure recovery procedures. This is a long term process, but will reap

good dividends in the future. Also, there are too few Station Support Computers (SSCs) on ISS and there are none in the FGB where the amateur radio station resides. To do the full checkout and recovery will require the crew to disconnect one of the SSC computers from another area and use it to perform the checkout and recovery procedure. We are not sure when this will happen--probably in the next 2-3 weeks. We will keep you informed on this. We expect to fix this problem and move into autonomous packet operations soon.

SCHOOL GROUP CONTACTS

As you know, we have had 3 successful school group contacts. We are rapidly converging on a program that will allow us to conduct 6 school group contacts per month. The ARISS team will provide updates on these contact times. Stay tuned.

FAMILY CONTACTS

The lack of TDRSS coverage has resulted in a stronger need for the increment 1 crew to rely on the ARISS equipment to talk with their family. The ARISS team understands that this is impacting the general QSOs for now. I must tell you all how proud I am that amateur radio is playing such a big part of the psychological well being of the ISS Crew. I am certain that Shep will put in a very big plug for amateur radio when he does his post flight debriefings.

THE FUTURE

We are working with the team in Russia to train the follow-on ISS crews. The increment 2 & 3 crews have gotten sufficient training in Russia. We are working with the JSC team in Houston to get a bit of time with these crews to complement the great training that our Russian colleagues have given the crew.

If the packet battery is dead, we will either develop an in-flight maintenance procedure to replace the battery or will swap the TNC with the flight spare. Please

remember that a dead battery does not kill the packet system--we either need to keep it powered up or have an SSC on-hand to upload parameters right after power-up.

We have additional equipment, such as the SSTV equipment and new antennas for the Service Module, that we hope to launch this year. (Actually the Russian team have already conducted a series of EVA training sessions in the Hyrdolab water tank in preparation for our antenna installation). We will continue to improve the hardware and operations.

Just like the pioneers of the 1800's, the amateur radio community is blazing a new trail for human space flight. Trailblazing is not for the faint of heart. We WILL have complications and problems along the way---just like the US team's forefathers did as they crossed the US. Let's all be patient and persistent. The ARISS team did just that with the hardware and we were ultimately successful. We are well respected and admired by our (full paid) colleagues in the space agencies. If we continue to be patient and persistent as a team, we will all guide this program into a fantastic future with exciting opportunities for school crews.

Wishing you all 73 thanks for your interest in ARISS.

Frank H. Bauer, KA3HDO
Chairman, ARISS
AMSAT V.P for Human Spaceflight Programs

Via the sarex mailing list at AMSAT.ORG courtesy of AMSAT-NA.

Meanwhile back here on earth.....

During the January 26 earthquake that devastated part of Gujarat State, the only communications in and out of the affected area depended upon two radio amateurs. Transmissions by Ram Mohan and N. Bavi near the quake epicenter gave a terrifying description of the first days following the disturbance. Everything was buried under tons of debris and bodies too numerous to count.

Mohan and Ravi were part of the handful of volunteers to reach Gujarat State the evening of the quake. An amateur control station was set up in the nearby capital, and by the end of the first day following the quake over two hundred messages were sent on HF about the need for doctors, medicine, ambulances and cranes.

Urgent messages about critically injured patients were sent to nearest hospitals so they could prepare for the medical evacuees, stated S. Ram, the manager of the National Institute of Amateur Radio, which teaches the necessary requirements for amateur licensing in India. More than twenty portable stations were set up by forty amateurs in emergency hospitals and shelters. in the days that followed. Within a short time, communications shifted to replying to calls from people all over the world inquiring about the safety of family and loved ones.

(Tks Al VA3AMY for the news item)

How to avoid repeater "doubling".....

We've all experienced "doubling" while using a repeater. With three or more operators on at the same time, it's easy to avoid "doubling" if you always **direct** the next transmission to someone specific when you finish transmitting. Learn how to conduct a "roundtable" properly.....ensuring each operator has a chance to talk when his turn comes up.....don't simply say something like "...and that's about it VE3ABC !" when there are two or more operators waiting to transmit! Instead, "...and that's about it... VE3XYZ to take it, this is VE3ABC". Learn to **direct** the communications flow! And always wait for the "beep"!!!

Wizard of the wireless world dies.....

Al Gross, who died at 82, was the granddaddy of CB . His wizardry in wireless communications earned him a stack of patents foretelling the advent of cell phones, paging systems, garage-door openers and walkie-talkies. Gross was a native of Toronto who became fascinated at nine years of age on a Lake Erie cruise when he listened in on the ship's radio. He earned his "ham" ticket at age 16 and by 1938 he had made his first "walkie-talkie" to chat with other hams while walking around.

During World War II, Gross developed the first ground-to-air, battery-operated two-way radio. It used compact antennas and unexplored high frequencies achieving ranges up to 50 kilometers. His wireless intelligence-gathering operations were credited with shortening the length of the war. At the end of the war, the F.C.C. created the Citizens' Radio Communications Service (CB) for private short-range communications.

Gross established his business, Citizens Radio Corp., and developed circuitry that paved the way for pocket personal paging systems and patented precursors of the cell phone and the cordless phone. For the 10 years preceding his death, Gross remained active as an inventor and engineer in aerospace, satellite and military electrical and electronic systems.

(Tks Pat **VE3PD**)

New hams?????

We certainly hope so.....these are the students currently enrolled in our classes....make them feel welcome if you encounter them at a meeting:

TERESA RAHMER
STAN RINGIUS
GORDON RINGIUS
ROY TENIUK
STEPHAN BURNS
BERNARD WELMERS

A Special Request.....

As your President, I would like to update the inventory list of the club's property. If you have any club equipment such as communications equipment, antennas, towers, test equipment, coax, pictures, trophies, etc. please give Judy **VA3EAP** a call at 345-2218 or email jartist@tbaytel.net a brief description of the equipment and serial numbers (if there are any), and the name of the member that has the equipment.

This inventory will take place over the next three months.....asking for you cooperation.

Bob **VE3RVA**

Down Memory Lane.....

March 1988.....President was James **VE3JSC**...25 operators assisted with the Jeep 1500 snowmobile races, manning checkpoints from Thunder Bay to Grand Marais. Communications involved 2 meter simplex, repeaters and 75 meters. Laurie **VE3BCD** was repairing the YQT phone patch (some never things never change for the good "Doctor"!!!). John **VE3OTC** was seeking volunteers to assist with the Sibley Ski Tour. Our bank balance at the end of January stood at \$2788.18. Ed **VE3SNW**, Tom **VE3CX**, Don **VE3CAP**, Steve **VE3KRH** and Richard **VE3OPI** all contributed toward the production of HI-Q for March (and it cost 37 cents to mail out 6 pages).

73 de ve3avs

LARC Family Ski Nite.....

Lotsa fun, superb ski trails and nice wx.....All the serious LARC skiers were out.....**VE3's XLB, XRC, FLB, AVS** and **VA3's MOB** and **WRL** enjoyed a perfect evening on skis. Lots of room in chalet and on the trail.....**VA3EAP** wasn't there so no first aid required!!!

Tech Musings

Spring is just around the corner and so our thoughts are turning to radios, repeaters and antennas right! Well there have been some developments in our area most notably the increased activity on the 70 cm band. We once again we have a UHF repeater at the St Joe's Heritage TBR site on 442.075+. It is not yet linked to TBR and is still in the experimental stage, so if you have 440 capabilities try it out and you may be surprised at the city-wide indoor coverage possible.

The Nipigon repeater project is progressing as we have ordered a controller and Tim Borg **VA3ECS** in Nipigon is working with the owner of the site to accommodate our equipment. There is still a lot of work to be done but we are on our way. As many of you know the Nipigon site has a simplex repeater on 146.56 for testing and at the moment it is connected to the main 4 bay 8db gain antenna used by the owner of the site for commercial purposes. His equipment is not used during the winter months so he has let us try his antenna out and the coverage is very good. I was able to work it with an HT running 2 watts inside a vehicle near Rossport. I have also heard reports that Sam **VA3SAM** has been able to work it from Gull Bay.

As we are trying to consolidate all the technical documentation for repeaters, controllers and other LARC equipment please let me know if you have any manuals, diagrams or sacred scrolls that could be filed for future reference.

Do you know who invented the HT and a host of other goodies? Check out the following site for an interesting <http://www.canadacomputes.com/v3/story/1,1017,560,3,00.html> article

Andy Malcolm **VE3INI**

(My thanks to Andy for this update from the "techies".....look for more down the road.....Ed.)

Ontario QSO Party.....

Thanks to Bob Chandler **VE3SRE** for emailing information about the Ontario QSO Part. The dates/times are as follows:

April 21 – 1800 UTC to April 22 – 1800 UTC

All HF bands except WARF may be used as well as all VHF/UHF bands. Unfortunately, space limits detailing any more than this, but you can download specific information from:

www.odxa.on.ca/oqphome.html or email ve3sre@rac.ca

RAC Forthcoming Events....

March 3-4 ARRL Inter. DX Phone Contest
March 3-4 SLP Competition (SWL)

March 1 – 31 Special Event call sign **VC2CQ** has been assigned to the Club de Radio Amateur de Quebec (**VE2CQ**) to celebrate their 75th anniversary.

March 2-31 Special Event call sign **VC4X** has been assigned to **VE4VV** to commemorate the construction of Winnipeg's first city hall in Manitoba.

Other RAC News.....

On February 16th of this year, a committee met at RAC Headquarters to count the ballots received for the election of Director of Ontario North.

As a result of this ballot tally, Douglas Leach, **VE3XK**, was declared the successful candidate and is now the Director of Ontario North.

Only in Northern Ontario does one describe minus 40 degrees as a "little chilly", and the car trunk doubles as a deep freeze!!! (Tks **VA3SAM**)

**Minutes of the 67th Annual Dinner Meeting of the Lakehead Amateur Radio Club
held at the Slovak Legion, Sun Room, Atlantic Avenue
Thunder Bay, Ontario, on February 10, 2001**

The evening was called to order at 7:00 p.m. by VE3RVA, Bob Hansen. A moment of silence was observed for silent keys of the Lakehead Amateur Radio Club. Grace was said by VE3RVA, Bob Hansen.

Following a delicious buffet enjoyed by approximately 40 members and guests, a short business meeting was held presided over by the President VE3RVA, Bob Hansen.

Minutes of the Meeting held January 11, 2001:

The minutes of the meeting held on January 11, 2001 were published in detail in the January issue of "Hi-Q" and distributed to all the members.

Motion: moved by VA3JRS, Jan Sokoloski and seconded by VE3ZG, Mike Nawrocki that the minutes be accepted as distributed. **Carried.**

Correspondence: none

Treasurer's Report: VA3JRS, Jan Sokoloski

Balance as of December 31, 2000			\$ 3,112.13
Income:	Bank Interest	0.13	
	50/50 Draw	13.00	
	Membership dues	<u>35.00</u>	48.13
Expenses:	Bank Service Charges	1.50	
	Hi-Q	27.03	
	Telephone	<u>40.37</u>	64.94
Balance as of January 31, 2001			\$ 3,095.32

Motion: moved by VA3JRS, Jan Sokoloski and seconded by VA3XRM, Rod McLeod, that the Treasurer's Report be accepted. **Carried.**

Committee Reports:

Equipment: VE3INI, Andy Malcolm reported that the Nipigon Repeater Controller has been ordered. The Nipigon Repeater work is on-going.

Ares: VA3GOT, Randy Gottfred had the new ARES ID cards to be handed out at this meeting.

Public Service: VA3MOB, Maureen Meredith reported that volunteers are all in place for the Sibley Ski Tour to take place on March 3, 2001.

Old Business:

Club Inventory: VE3RVA, Bob Hansen asked if anyone has equipment belonging to the club, would they please phone it (or email) to VA3EAP, Judy Artist so it can be added to the inventory list.

March Meeting: Show-and-Tell - Please bring anything of interest to the meeting to share with other club

members. **April/May Meetings:** still looking for speakers **June Meeting:** VA3FAL will do a presentation.

New Business:

Auditors Report: The Treasurers Books were audited by VE3SNW, Ed Baumann and VE3GTX, John Watson. They reported that the books were acceptable and up to standard.

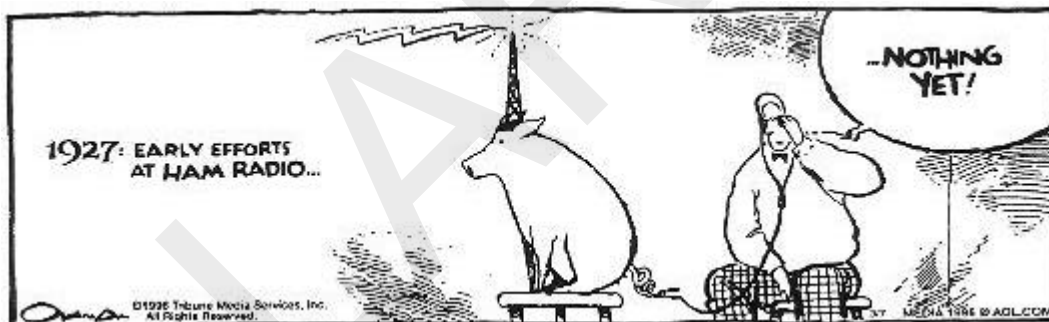
Amateur Radio Classes: VE3SNW, Ed Baumann is happy with the attendance and progress of the classes. If any club member is interested in attending, their input would be very much appreciated.

50/50 Draw: Winner of the 50/50 draw was VE3SNW, Ed Baumann.

Adjournment: moved by VA3WRL, Wayne Letang that the meeting be adjourned.

Guest Speaker: VE3RVA, Bob Hansen introduced our guest speaker for the evening, Mr. Harold Alanen. Harold was born and raised in the Thunder Bay area. As a teacher, he taught in many public schools in Thunder Bay, and retired as principal of 5-Mile School with 33 years of service in the teaching profession. He has many hobbies such as woodcarving, metal detection, painting, hunting, fishing, skiing and relaxing at his summer cottage. Photography, another hobby, is what brought Harold to us this evening. In 1985, Harold took a Photo Safari to Serengeti Plain, Tanzania, in Africa. He showed us beautiful slides of animals, birds, local habitants, breath-taking scenery and told of his adventures on that memorable trip. Following his presentation, Harold showed us items he brought back from Africa and answered questions from the floor. VE3RVA, Bob Hansen thanked Harold for his presentation and also thanked those who helped put together this evening's activities.

A record number of door prizes were drawn for (thanks to all who contributed).



NOTICE OF LARC MONTHLY MEETING

THURSDAY MARCH 8TH AT 1930 HOURS

ROOM 191 (NOTE NEW ROOM)

CONFEDERATION COLLEGE